Title (en)

Method of forming through-substrate vias and corresponding decvice

Title (de)

Verfahren zur Herstellung von Substratdurchkontaktierungen und zugehöriges Bauelement

Title (fr)

Procédé de fabrication pour interconnexions verticales traversantes et dispositif correspondant

Publication

EP 2183770 B1 20200513 (EN)

Application

EP 08795005 A 20080731

Priority

- US 2008009356 W 20080731
- US 96275207 P 20070731

Abstract (en)

[origin: WO2009017835A2] A microelectronic unit 400 can include a semiconductor element 401 having a front surface, a microelectronic semiconductor device adjacent to the front surface, contacts 403 at the front surface and a rear surface remote from the front surface. The semiconductor element 401 can have through holes 410 extending from the rear surface through the semiconductor element 401 and through the contacts 403. A dielectric layer 411 can line the through holes 410. A conductive layer 412 may overlie the dielectric layer 411 within the through holes 410. The conductive layer 412 can conduct ively interconnect the contacts 403 with unit contacts.

IPC 8 full level

H01L 21/768 (2006.01); **H01L 23/31** (2006.01); **H01L 23/48** (2006.01); **H01L 25/065** (2006.01)

CPC (source: EP US)

H01L 21/76898 (2013.01 - EP US); **H01L 23/3114** (2013.01 - EP US); **H01L 23/481** (2013.01 - EP US); **H01L 24/18** (2013.01 - US); **H01L 24/24** (2013.01 - EP); **H01L 24/82** (2013.01 - EP US); **H01L 24/95** (2013.01 - EP US); **H01L 24/96** (2013.01 - EP US); **H01L 25/0657** (2013.01 - EP US); **H01L 25/50** (2013.01 - EP US); H01L 21/76805 (2013.01 - EP US); H01L 24/12 (2013.01 - EP US); H01L 2224/02372 (2013.01 - EP US); H01L 2224/0401 (2013.01 - EP US); H01L 2224/04105 (2013.01 - EP); H01L 2224/12105 (2013.01 - EP); H01L 2224/13024 (2013.01 - EP US); H01L 2224/13025 (2013.01 - EP US); H01L 2224/2518 (2013.01 - EP US); H01L 2224/82039 (2013.01 - EP US); H01L 2225/06513 (2013.01 - EP US); H01L 2225/06541 (2013.01 - EP US); H01L 2924/01005 (2013.01 - EP US); H01L 2924/01006 (2013.01 - EP US); H01L 2924/01013 (2013.01 - EP US); H01L 2924/01027 (2013.01 - EP US); H01L 2924/01033 (2013.01 - EP US); H01L 2924/01079 (2013.01 - EP US); H01L 2924/01082 (2013.01 - EP US); H01L 2924/014 (2013.01 - EP US); H01L 2924/10253 (2013.01 - EP US); H01L 2924/10329 (2013.01 - EP US); H01L 2924/12042 (2013.01 - EP US); H01L 2924/12044 (2013.01 - EP US)

Citation (examination)

US 6828175 B2 20041207 - WOOD ALAN G [US], et al

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WO 2009017835 A2 20090205; **WO 2009017835 A3 20090416**; CN 101802990 A 20100811; CN 101802990 B 20130313; CN 103178032 A 20130626; CN 103178032 B 20170620; EP 2183770 A2 20100512; EP 2183770 A4 20100804; EP 2183770 B1 20200513; JP 2010535427 A 20101118; JP 2013175764 A 20130905; JP 5723915 B2 20150527; KR 101538648 B1 20150722; KR 101588723 B1 20160126; KR 20100065151 A 20100615; KR 20150045953 A 20150429; US 2009065907 A1 20090312; US 2012241976 A1 20120927; US 8193615 B2 20120605; US 8735287 B2 20140527

DOCDB simple family (application)

US 2008009356 W 20080731; CN 200880106618 A 20080731; CN 201310022626 A 20080731; EP 08795005 A 20080731; JP 2010519953 A 20080731; JP 2013088258 A 20130419; KR 20107004471 A 20080731; KR 20147036340 A 20080731; US 201213488930 A 20120605; US 22120408 A 20080731